

UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

NETLIST, INC.

Plaintiff,

vs.

SAMSUNG ELECTRONICS CO., LTD.,
SAMSUNG ELECTRONICS AMERICA, INC.,
SAMSUNG SEMICONDUCTOR, INC.,

Defendants.

Civil Action No. 2:21-00463-JRG

JURY TRIAL DEMANDED

**PLAINTIFF NETLIST INC.'S RESPONSE TO SAMSUNG'S OBJECTIONS TO CLAIM
CONSTRUCTION MEMORANDUM ORDER**

Plaintiff Netlist, Inc. (“Netlist”) submits the following response to Samsung’s objections to Judge Payne’s Objections to Claim Construction Memorandum Order (Dkt. 136). Samsung has failed to show that the constructions for the terms below in Judge Payne’s Claim Construction Memorandum Order (Dkt. 114, the “Order”) are clearly erroneous or contrary to law.

I. The ’918 & ’054 Patents

A. “dual-buck converter” / “dual-buck converter” / “voltage” terms

For the many of the terms at issue for the ’918 and ’054 patents, the dispute between the parties is whether the referenced “voltages” and “voltage amplitudes” can have the same numerical values. As explained in Netlist’s briefs, the specification clearly contemplates generating independent voltage outputs with identical voltage values. *See, e.g.*, Dkt. 76 at 23-24 (“dual buck converter” / “dual-buck converter”); *id.* at 18-22 (“first” / “second” / “third” / “fourth” “regulated voltages” and “voltage amplitudes”); *id.* at 22-23 (“at least three regulated voltages” / “a plurality of regulated voltages”).

For example, for “dual buck converter,” Netlist explained that the specification discloses that a buck converter outputs two regulated voltages to the memory system 1010 and discloses embodiments where both voltage 1104 and voltage 1105 of dual-buck converter 1124 *could have the same amplitude*, such as when both the isolation device and the FPGA operate at the same voltages. Dkt. 87 at 2-3 (citing ’918, 29:44-50, Ex. 29 at 2); Dkt. 76 at 23-24. Judge Payne confirmed that Samsung failed to show that the specification expressly redefines “dual buck converter,” and thus correctly found that the term should be construed to mean “a buck converter with two regulated voltage outputs,” rejecting the argument that the voltage amplitudes cannot be the same. Dkt. 114 at 19-21, 34.

As another example, for the “voltage amplitudes,” Netlist explained that the claims and specification did not require that the “first” / “second” / “third” / “fourth” “voltage amplitudes” all

be the same value. *See, e.g.*, Dkt. 76 at 20-21 (explaining that reading a requirement into the claims that all voltage amplitudes be “distinct” would render certain claim limitations redundant, e.g., “a first one of the second and fourth voltage amplitudes is less than a second one of the second and fourth voltage amplitudes,” ’918, 38:49-52) (citing *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1234 (Fed. Cir. 2016)); Dkt. 76 at 21 (citing disclosure in ’918, 29:39-44 suggesting that independent voltages need not have different voltage levels). Judge Payne correctly found that “Samsung provides no technical reason why the voltage amplitudes could not be the same, nor any citations from the background section suggesting different voltage levels advance the purpose of the invention,” and accorded these terms their plain and ordinary meaning. Dkt. 114 at 24, 34.

Similarly, for the “regulated voltage” terms, Netlist argued that the claims merely required physically separate “regulated” output voltages, i.e. the enumerated regulated voltages. *See* Dkt. 87 at 1-2; Dkt. 76 at 18-22. Judge Payne agreed:

The context of the claim language shows “first,” “second,” “third,” and “fourth” are simply labels of convenience. The “first regulated voltage” is the voltage at the output of the “first buck converter,” and the “first voltage amplitude” is simply the amplitude at that output. Similarly, the “second regulated voltage” is the voltage at the output of the second buck converter, and the “second voltage amplitude” is simply the amplitude at that output, and so on. The regulated voltages are distinct in the sense they are voltages at different physical outputs, but there is no reason to exclude embodiments in which one or more of the first through fourth voltage amplitudes are the same value.

Dkt. 114 at 24. For similar reasons, the Order was also correct in finding that “at least three regulated voltages” and “a plurality of regulated voltages” should be construed according to their plain and ordinary meaning. Dkt. 114 at 25, 34-35; Dkt. 76 at 22-23.

B. “pre-regulated input voltage” / “input voltage”

The Order correctly found that the term “pre-regulated input voltage” should be given its plain and ordinary meaning. Dkt. 34. The claim only requires the “pre-regulated input voltage” to be

the input to the conversion circuits. ’918, 39:60-61 (“first, second, and third buck converters configured to receive a pre-regulated input voltage”), 39:63-64 (“a converter circuit configured to reduce the pre-regulated input voltage to provide a fourth regulated voltage”); Dkt. 114 at 22. Nothing in the claim links the “input voltage” to the “pre-regulated input voltage” and requires that the “pre-regulated input voltage” be necessarily generated from the “input voltage.” As Netlist showed, the specification does not either. Dkt. 76 at 25-26; Dkt. 87 at 3-4. Thus, the Court correctly found that the claims “only require what the buck converters receive, not what the other elements of the memory module provides.” Dkt. 114 at 22.

C. “a second plurality of address and control signals”

The context of the claim makes clear that the “first” and “second” plurality of address and control signals do not refer to “repeated instances of an element.” *See* Dkt. 76 at 23 (citing ’918 at 38:43-47). Rather, the first plurality of address and control signals refer to the input signal to the first circuit and the second plurality of address/control signals refer to the signals output by the first circuit. *Id.* at 22-23, Dkt. 87 at 3. The claims impose no restriction on whether these signals need to have the same or different digital values, the same or different waveform or other alleged restrictions. Dkt. 114 at 25-26. In fact, Samsung’s expert even alleges in his opening report that it is his opinion that “the specification only discloses ‘first plurality of address and control signals’ and ‘second plurality of address and control signals’ that are the same.” Ex. 1, ¶ 2154. This is simply another example of Samsung adopting inconsistent positions: one position for infringement but another for invalidity. Judge Payne correctly found that “a second plurality of address and control signals” should be construed according to its plain and ordinary meaning. *Id.* at 35.

D. “A memory module”

The Order correctly found that the preamble of the ’918 and ’054 patent claims (“a memory module”) should be limiting. Dkt. 114 at 35. Contrary to Samsung’s assertion, the preamble is

necessary to give life, meaning and vitality to the claims, as explained in Netlist’s briefs. Dkt. 76 at 24. As the Court correctly found, the term “memory module” has essential structural requirements not necessarily found in other modular computer accessories. Dkt. 114 at 28. For instance, Samsung’s expert in IPR proceedings testified recently that a person of ordinary skill in the art “by the 2004-2005 time frame” would understand that a “memory module,” unlike other types of memory, “was intended to go into a dedicated memory slot and not a general-purpose IO slot.” *See* Ex. 2 (2023-1-4 Wolfe Tr.) at 100:22-101:8.

II. The ’506 Patent

A. “before receiving the input C/A signals corresponding to the memory read operation”

The Court correctly found that the step of “determining the first predetermined amount based as least on signals received by the first data buffer” occurs before the earlier recited step of “receiving . . . input C/A signals.” Dkt. 114 at 35. For reasons stated in Netlist’s briefs, and the Order, the intrinsic record does not support Samsung’s contention that “before” occurs “during one or more previous operations.” Dkt. 76 at 16-17; Dkt. 87 at 6; Dkt. 114 at 15-16.

III. The ’339 Patent

A. “drive” terms

The Order found that to “drive” means “enabling only one of the data paths while the other possible paths are disabled.” Dkt. 114 at 34. Samsung disagrees with this construction. Dkt. 136 at 4-5. As Netlist explained, the claims do not require that there necessarily be a second path. *See* Dkt. 76 at 5-8; Dkt. 87 at 6-9; Dkt. 133-1 (Hearing Tr.) at 57:21-59:23 (explaining that the ’339 patent discloses embodiments with only a single data path, e.g., two-rank embodiments). The Order properly recognized that the claims are not limited to the multi-fork configurations. Dkt. 114 at 10. The Court noted, however, if a multi-fork configuration existed, then only one of the forks would

be utilized at a given time. *Id.* (articulating what a POSITA would understand “driving” data in the context of the claims to mean “when there are multiple paths in a buffer through which that data can be driven”). Thus, the Court correctly construed the term as “enabling only one of the data paths while the other possible paths are disabled” with the phrasing “the other possible paths” accounting for the possibility that there are no alternative paths. Dkt. 114 at 10.

B. “module controller” terms

The Order correctly found that the “module controller” terms should be construed according to their plain and ordinary meaning. Dkt. 114 at 34. Samsung’s objections make the same mischaracterization of the ’339 patent’s disclosure of a “control circuit” as in its claim construction brief. Dkt. 82 at 26-29. For reasons stated in Netlist’s briefs, and the Order, the claim does not require rank multiplication and the specification teaches embodiments involving no rank multiplication. Dkt. 76 at 8-10; Dkt. 87 at 9-10; Dkt. 114 at 11-12 (concluding that “Samsung’s suggestion its construction must be adopted to avoid excluding the sole embodiment of the patent [] is incorrect.”).

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document was filed electronically in compliance with Local Rule CV-5 on January 12, 2023. As of this date, all counsel of record have consented to electronic service and are being served with a copy of this document through the Court's CM/ECF system under Local Rule CV-5(a)(3)(A), or separately via electronic mail.

/s/ Michael Tezyan
Michael Tezyan

CERTIFICATE OF AUTHORIZATION TO FILE UNDER SEAL

I hereby certify that the foregoing document and exhibits attached hereto are authorized to be filed under seal pursuant to the Protective Order entered in this Case.

/s/ Michael Tezyan
Michael Tezyan